Claims

[c1]   1.An information processing terminal which is connected onto a network to which a plurality of information processing terminals are connected, and transmits a signal when it acquires a transmission privilege on the network, comprising:

a bus status detecting means for detecting whether said network is busy or idle;

a counting means for repeating count-up to reach a idle time unit if the network is idle as a detected result of said bus status detecting means;

a control means for managing a parameter incremented whenever the idle time unit is detected as a result of count-up by said counting means and creating a transmission frame when said parameter agrees with its own node ID having a default node ID0 allotted to each node as an initial value; and

a transmitting means for transmitting the transmission frame created by said control means.

[c2]   2.An information processing terminal according to claim 1, further comprising a receiving means for receiving the transmission frame,

wherein said transmission frame transmitted from the other information processing terminal connected to said network includes the default node ID0, and

said control means extracts the default node ID0 included in the transmission frame received by said receiving means and updates said parameter to said default node ID0.

[c3]   3.An information processing terminal according to claim 2, further comprising a synchronizing error detecting means for detecting within its own terminal an error which affects the synchronization with the other information processing terminal on said network and relates to counting of said parameter,

wherein when the error is detected by said synchronizing error detecting means, said control means sets its new own node ID at the sum of a prescribed value enough to continue the period dedicated to reception for a prescribed time and said default node ID0, and thereafter when said transmission frame is normally received by said receiving means, said control means updates said parameter to said default node ID0 included in said transmission frame.

[c4]   4.A transmission privilege rounding system wherein a plurality of information processing terminals one of which is defined by one of claims 1 to 3 are connected to

the same network, and said transmission privilege is rounded among said plurality of information processing terminals.

[c5] 5.A method for rounding a transmission privilege on a network to which a plurality of nodes are connected, comprising the steps to be carried out by each of said nodes of:

detecting whether said network is busy or idle, repeating count-up to reach an idle time unit if said network is idle, and

incrementing a parameter whenever said idle time is detected;

transmitting the transmission frame inclusive of the node ID if said parameter agree with the node ID;

extracting said node ID included in said transmission frame when said transmission frame is received from the network and updating said parameter to said node ID.

[c6] 6. A computer-readable transmission privilege acquisition program loaded in a node which can transmit a signal onto a network to which a plurality of nodes are connected when each node acquires a transmission privilege, said program causing a computer to execute:

processing of detecting whether said network is busy or idle;

processing of repeatedly counting to reach a idle time

unit if said network is idle;

processing of incrementing a parameter whenever said idle time is detected, thereby creating a transmission frame inclusive of the node ID if said parameter agree with the node ID; and

processing of transmitting the transmission frame thus created.